CLAIMS

1. A system for dynamically implementing a chain of Web services from a client on the World Wide Web to execute a workflow, comprising:

a database for storing a list of available Web services, wherein each listed Web service includes a description of a task performed by the Web service, and an input and output signature of the Web service; and

a selecting system for forming the chain of Web services by selecting a Web service for each of a plurality of tasks in the workflow, wherein the selecting system matches input and output signatures to ensure that each selected Web service is compatible with adjacent Web services in the chain of Web services.

2. The system of claim 1, wherein the workflow comprises a microarray analysis workflow.

3. The system of claim 1, further comprising a workflow generator for creating the workflow.

4. The system of claim 1, wherein the list of available Web services resides locally with the client.

5. The system of claim 1, further comprising a system for collecting and storing available Web services data.

6. The system of claim 1, further comprising a system for inputting sequence data into the workflow execution.

7. The system of claim 1, wherein the workflow includes a specified input and output format.

8. A program product, stored on a recordable medium for executing a workflow by dynamically implementing Web services from a client on the World Wide Web, comprising:

means for storing a list of available Web services, wherein each listed Web service includes a description of a task performed by the Web service, and an input and output signature of the Web service; and

means for forming a chain of Web services by selecting a Web service for each of a plurality of tasks in the workflow, wherein the forming means matches input and output signatures to ensure that each selected Web service is compatible with adjacent Web services in the chain of Web services.

9. The program product of claim 8, wherein the workflow comprises a microarray analysis workflow.

10. The program product of claim 8, wherein the workflow comprises a bioinformatics workflow.

11. The program product of claim 8, further comprising means for creating the workflow.

12. The program product of claim 8, wherein the storage means resides locally with the client.

13. The program product of claim 12, further comprising means for collecting and storing available Web services data in said storage means.

14. The program product of claim 8, further comprising a system for inputting sequence data into the workflow execution.

15. The program product of claim 8, wherein the workflow includes a specified input and output format.

16. A method for executing a bioinformatics workflow from a client on the World Wide Web, comprising:

   providing a workflow having a plurality of tasks;

   providing a list of known bioinformatics Web services, wherein each listed Web service includes a description of a task performed by the Web service, and an input and output signature of the Web service;

   selecting a Web service from the list of known bioinformatics Web services for each task in the bioinformatics workflow to form a chain of Web services, wherein the selecting step matches input and output signatures to ensure that each selected Web service is compatible with adjacent Web services in the chain of Web services; and

   calling each selected Web service in the chain to execute the bioinformatics workflow.

17. The method of claim 16, wherein the bioinformatics workflow comprises a microarray analysis.

18. The method of claim 16, wherein the list of known bioinformatics Web services resides locally to the client.

19. The method of claim 16, wherein the workflow includes a specified input and output format.

20. The method of claim 19, wherein the step of calling each selected Web service includes the step of providing a set bioinformatics data to a first Web service in the chain in the specified input format.